

ABSTRACT

A cardiac pacemaker includes a power transmitter which periodically transmits a pulse of a radio frequency signal to a vascular electrode-stent that is implanted in a vein or artery of an animal. The vascular electrode-stent employs energy from the radio frequency signal to charge a storage device which serves as an electrical power supply. The vascular electrode-stent also detects a cardiac signal emitted from the sinus node of the heart and responds thereto by applying a pulse of voltage from the storage device to a pair of electrodes implanted in the vascular system of the animal. Application of the voltage pulse to the electrodes stimulates contraction of the heart.